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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,565	02/08/2002	Charles F. Heinig JR.	46237/55852	9862

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EXAMINER

DRODGE, JOSEPH W

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,565	HEINIG, CHARLES F.	
	Examiner	Art Unit	
	Joseph W. Drodge	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0402</u> . | 6) <input type="checkbox"/> Other: _____. |

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NON-FINAL REJECTION

The abstract of the disclosure is objected to because it lacks sufficient detail such as identifying advantages of particular activation temperatures for the alumina.

Correction is required. See MPEP § 608.01(b).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinig patent 4,608,247 in view of Heinig patent 5,352,369, both of record and Hansen et al patent 6,471,876.

Heinig '247 discloses production of filtering and sterilizing medium that comprises a substrate of activated alumina having filler material such as activated charcoal [as in claims 11, 13, 14, 20, 22, 24 and 25] having silver ions deposited thereon (column 4, line 45-column 5, line 3, etc.), the alumina activated at temperatures of approximately 400 degrees F (column 6, lines 24-34 and column 7, lines 2-3).

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The claims firstly differ in requiring that the activation occur prior to deposition of the silver. Heinig '369 teaches such sequence (column 3, lines 36-42). It would have been obvious to one of ordinary skill in the art to have activated the alumina substrate prior to deposition of the silver for the method and apparatus of Heinig '247, as suggested by '369, so as to achieve better chemical bonding between substrate and the silver.

The claims also differ in requiring that the activation occur at temperatures within the range of 325 to 375 degrees F. However, Hansen teaches that activation temperatures of substrates utilized within sterilizing or germicidal filters may vary widely depending upon desired end properties of the medium/filter (column 10, lines 1-2; column 2, lines 20-63 and column 11, lines 31-47). It would have been further obvious to one of ordinary skill in the art to have adjusted the activation temperature in the Heinig '247 system downward slightly to the 325-375 degrees F range, as suggested by Hansen, so as to vary medium properties such as specific gravity, pore size, etc.

Heinig '247 also discloses the following with respect to various dependent claims:

The alumina being of 4-20 mesh as in claims 3 and 4 (column 4, line 50);

The alumina being insoluble in water as in claim 5 (column 4, line 54);

The alumina having a porosity of greater than 150 as in claims 6 and 7 (column 4, line 51);

The alumina having a hardness exceeding 2.5 Mohs as in claims 9, 10, 19 and 30 (column 4, lines 53-54);

The alumina being at a neutral pH as in claim 8 (column 4, lines 54-55);

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The filler being activated charcoal as in claims 13, 14, 24 and 25 (column 5, lines 1-2);

The weight ratio of filler to alumina ranging between 1:1 to 5:1 as in claims 15-17 and 26-28 (column 4, lines 66-68).

Any inquiry concerning this communication or other matters regarding prosecution of this application should be directed to Examiner Joseph Drodge at telephone number (703) 308-0403 Monday-Friday between 8:30 AM and 4:45 PM. The fax number for the Examining Group is (703) 872-9306.

JWD

September 15, 2003


JOSEPH DRODGE
PRIMARY EXAMINER